

REMARKS

The above-identified Office Action dated October 20, 2008, contained a final rejection of claims 1-20, 22-20, 63, 64, 68, 71, 74 and 75. In response, claim 10 has been amended to correct a typographical error. Claims 1-20, 22-20, 63, 64, 68, 71, 74 and 75 are in the case. The amendment to claim 10 and the below response is intended to place the case in condition for allowance, or alternately in better form for consideration on appeal under 37 CFR 1.116. Reexamination and reconsideration of the application are requested.

The Office Action rejected claims 1-20, 22-30, 63-64, 68, 71 and 74-75 under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Yudasaka et al. (EP 1085578). The Office Action rejected claims 1-20, 22-30, 63-64, 68, 71 and 74-75 under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Furusawa et al. (WO 00/59044 – US Patent No. 6,518,087 as same patent family member used for citation purposes).

The Applicants respectfully traverse these rejections and submit that neither Yudasaka et al. nor Furusawa et al. disclose, teach or suggest all of the features of the independent claims.

Anticipation Rejections:

With regard to the anticipation rejections, the Examiner bears the burden of presenting at least a prima facie case of anticipation. *In re Sun*, 31 USPQ 2d 1451, 1453 (Fed. Cir. 1993) (unpublished). For example, the Examiner's conclusory statement without reason or support (and factually wrong) that the terms "in liquid suspension" of the Applicants' independent claims and a "solution" in the cited references "are not distinguishable from one another" unquestionably does not meet the burden of presenting at least a prima facie case of anticipation.

For example, the Yudasaka et al. reference does not disclose from a scientific and/or chemical standpoint the Applicants' claimed "nanoparticles as a solid in liquid suspension" but instead **explicitly** discloses that the "the solvents...dissolve the silicon compound" and "Hydrocarbon solvents and ether solvents are preferable among these solvents from the point of solubility of the silicon compound and modified silicon compound and stability of the solution" (see paragraph 45 of Yudasaka et al.) [emphasis added].

The Examiner's argument is incorrect because the solute in the Yudasaka et al. reference is completely dissolved by the solvent to create the "solution" as defined by Yudasaka et al. and *The Columbia Encyclopedia*, Sixth Edition. 2001-2007. In contrast, the solute particles of the Applicants' claimed "liquid suspension" are larger than molecules or ions and cannot adhere to the molecules of the solvent, as defined by the specification and *The Columbia Encyclopedia*, Sixth Edition. 2001-2007, and thus, cannot create a solution. In fact, *The Columbia Encyclopedia* specifically states that "A **solution** is distinct from a colloid or a **suspension**." [emphasis added]. Thus, since there's a scientific and chemical difference between the Applicants' claimed "nanoparticles as a solid in liquid suspension" and the "solution" of the cited references, the cited references cannot anticipate the claims.

Further, not only is the Examiner's statement that the terms "in liquid suspension" of the Applicants' independent claims and a "solution" in the cited references "are not distinguishable from one another" scientifically **erroneous**, clearly neither of the cited references disclose that the "**nanoparticles as a solid in liquid suspension**", as specifically arranged in the independent claims. According to *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), a proper anticipation rejection requires "...the presence in a single prior art reference disclosure of each and every element of the claimed invention, **arranged as in the claim**." [emphasis added]. As such, since neither Yudasaka et al. nor Furusawa et al. disclose all of the features as arranged in the Applicants' independent claims, neither reference can anticipate the claims. Hence, the Applicants kindly request withdrawal of the anticipation rejections.

Obviousness Rejections:

With regard to the obviousness rejections, as argued above, the cited references are missing features of the independent claims. According to case law and the MPEP, all of the claimed elements of an Applicants' invention **must be considered**. (*In re Kotzab*, 55 USPQ 2d 1313, 1318 (Fed. Cir. 2000). *MPEP 2143.*) [emphasis added]. If **one** of the elements of the Applicant's invention is **missing** from or not taught in the cited references and the Applicant's invention has advantages not appreciated by the cited references, then no prima facie case of obviousness exists. (*MPEP 2143.03*). The Federal Circuit Court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation

in the claimed system and its purpose was not taught therein. In Re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

In addition, the rejections of the claims under 35 U.S.C. § 103(a) should be withdrawn because even though the cited references do not disclose, teach, or suggest all of the features of the Applicants' claimed invention, the references should not be considered together because the Yudasaka et al. reference **teaches away** from the Applicants' claimed invention.

In KSR v. Teleflex, 550 U.S. ___, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007), the Supreme Court "relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is likely to be nonobvious" (KSR, at 12), referring to its earlier decision United States v. Adams, 383 US 39 (1966). One such type of "teaching away" is that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose" (MPEP sec. 2143.01.V., citing In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Namely, the Yudasaka et al. reference **teaches away** from the Applicants' claimed invention because the Yudasaka et al. reference explicitly states that "While the solvents to be used in the present invention are not particularly limited, provided **that they dissolve the silicon compound and do not react with the silicon compound...**" [emphasis added]. Hence, because the Yudasaka et al. reference requires the solvent to dissolve the silicon compound without reaction, the intended function in the Yudasaka et al. reference would be destroyed and rendered unsatisfactory for its intended purpose and the principle of operation of the Yudasaka et al. reference would change if the Applicants' claimed "nanoparticles as a solid in liquid suspension" were co-deposited.

The MPEP section 2143.01, part V. clearly states that "[I]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. Also, MPEP section 2143.01, part VI. states that "[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). As a result, this "teaching away" prevents the Yudasaka

et al. reference from being used by the Examiner. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

Moreover, because the Examiner could not find all of the features of the Applicants' independent claims in the cited references, the Examiner attempted to use impermissible hindsight when he mischaracterized both cited references, what is well known in the art, and the Applicants' claims and specification. As argued above and contrary to the Examiner's position, the feature of the **nanoparticles as a solid in liquid suspension** in the independent claims are in fact distinguishable from the "solution of a silicon compound" of the cited references.

It is well-settled law that the Examiner must have a reasonable basis for his conclusions. Namely, the Examiner cannot broadly mischaracterize the references and/or the Applicants' specification and/or claims and then use hindsight to arbitrarily find an element in the references (based on his misunderstanding of science) to support his rejection, which is the case here. *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443, 1446 (Fed. Cir. 1992).

The Examiner is reminded that according to *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971) the Examiner's obviousness rejection is only proper if it **"does not include knowledge gleaned only from the applicant's disclosure..."** [emphasis added]. The Examiner **clearly included knowledge gleaned only from the applicant's disclosure** when he rejected claims for obviousness. This is because the Examiner alleged that the terms "in liquid suspension" of the Applicants' independent claims and a "solution" in the cited references "are not distinguishable from one another."

Last, the Examiner improperly mischaracterized the cited references as they relate to the Applicants' specification and claims by improperly modifying references because they contain similar scientific terms, chemicals and chemical processes. **When the reference in question seems relatively similar to the Examiner**, "...the opportunity to judge by hindsight is particularly tempting." *McGinley v. Franklin Sports Inc.*, 60 USPQ 2d 1001, 1008 (Fed. Cir. 2001). [emphasis added]. Consequently, since the Applicants' claimed elements are **not** disclosed, taught or suggested by the cited references, because the Yudasaka et al. reference **teaches away** from the Applicants' claimed invention and because the Examiner's rejections are unquestionably based on hindsight, the Applicants submit that all of the rejections are improper and must be withdrawn. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*,

Inc. MPEP 2143.

With regard to the dependent claims, since they depend from the above-argued respective independent claims, they are therefore patentable on the same basis. (MPEP § 2143.03). As such, withdrawal of the obviousness rejection of the claims is respectfully requested.

As the foregoing response does not raise new issues, it is the Applicants' position that they are entitled to have the remarks considered to place the claims in condition for allowance, or alternately, in better condition for consideration on appeal under 37 CFR 1.116. It is, therefore, respectfully requested that the changes to the claims be entered despite the finality of the present rejection.

Thus, it is respectfully requested that all of the claims be allowed based on the amendments and arguments. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. Additionally, in an effort to further the prosecution of the subject application, the Applicants kindly request the Examiner to telephone the Applicants' attorney at **(818) 885-1575**. Please note that all mail correspondence should continue to be directed to:

Hewlett Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

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Edmond A. DeFrank
Reg. No. 37,814
Attorneys for Applicant
818.885.1575 TEL
818.885.5750 FAX